Nortel Ethernet Routing Switch 8300

Installation — DC Power Supply

Release: 4.1
Document Revision: 01.01

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ATTENTION

For information about the regulatory and safety precautions, read "Regulatory messages and safety precautions" in this guide.

For information about the software license, read "Software license" in this guide.

Contents

Regulatory information and safety precautions

International regulatory statements of conformity

This is to certify that the Nortel Networks 8300 series chassis and components installed within the chassis were evaluated to the international regulatory standards for electromagnetic compliance (EMC) and safety and were found to have met the requirements for the following international standards:

- EMC—Electromagnetic Emissions—CISPR 22, Class A
- EMC—Electromagnetic Immunity—CISPR 24
- Electrical Safety—IEC 60950, with CB member national deviations

Further, the equipment has been certified as compliant with the national standards as detailed in the following sections.

National electromagnetic compliance (EMC) statements of compliance

FCC statement (USA only)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to take whatever measures may be necessary to correct the interference at their own expense.

ICES statement (Canada only)

Canadian Department of Communications Radio Interference Regulations

This digital apparatus (8300 series chassis and installed components) does not exceed the Class A limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

Règlement sur le brouillage radioélectrique du ministère des Communications

Cet appareil numérique (8300 series chassis) respecte les limites de bruits radioélectriques visant les appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique du ministère des Communications du Canada.

CE marking statement (Europe only)

EN 55 022 statements

This is to certify that the Nortel Networks 8300 series chassis and components installed within the chassis are shielded against the generation of radio interference in accordance with the application of Council Directive 2004/108/EC. Conformity is declared by the application of EN 55 022 Class A (CISPR 22).

ATTENTION
This is a Class A product. In a domestic environment, this product may cause radio interference, in which case, the user may be required to take appropriate measures.

Achtung

Dieses ist ein Gerät der Funkstörgrenzwertklasse A. In Wohnbereichen können bei Betrieb dieses Gerätes Rundfunkstörungen auftreten, in welchen Fällen der Benutzer für entsprechende Gegenmaβnahmen verantwortlich ist.

Attention:

Ceci est un produit de Classe A. Dans un environnement domestique, ce produit risque de créer des interférences radioélectriques, il appartiendra alors à l'utilisateur de prendre les mesures spécifiques appropriées.

EN 55 024 statement

This is to certify that the Nortel Networks 8300 series chassis is shielded against the susceptibility to radio interference in accordance with the application of Council Directive 2004/108/EC. Conformity is declared by the application of EN 55 024 (CISPR 24).

EN 300386 statement

The Ethernet Routing Switch 8300 series chassis complies with the requirements of EN 300386 V1.3.3 for emissions and for immunity for a Class A device intended for use in either Telecommunications centre or locations other than telecommunications centres given the performance criteria as specified by the manufacturer.

EC Declaration of Conformity

This product conforms to the provisions of the R&TTE Directive 1999/5/EC.

European Union and European Free Trade Association (EFTA) notice

CE

All products labeled with the CE marking comply with R&TTE Directive (1999/5/EEC) which includes the Electromagnetic Compliance (EMC) Directive (2004/108/EC) and the Low Voltage Directive (2006/95/EC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms (ENs). The equivalent international standards are listed in parenthesis.

- EN 55022 (CISPR 22)–Electromagnetic Interference
- EN 55024 (IEC 61000-4-2, -3, -4, -5, -6, -8, -11)–Electromagnetic Immunity
- EN 61000-3-2 (IEC 610000-3-2)–Power Line Harmonics
- EN 61000-3-3 (IEC 610000-3-3)–Power Line Flicker

VCCI statement (Japan/Nippon only)

This is a Class A product based on the standard of the Voluntary Control Council for Interference (VCCI) for information technology equipment. If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

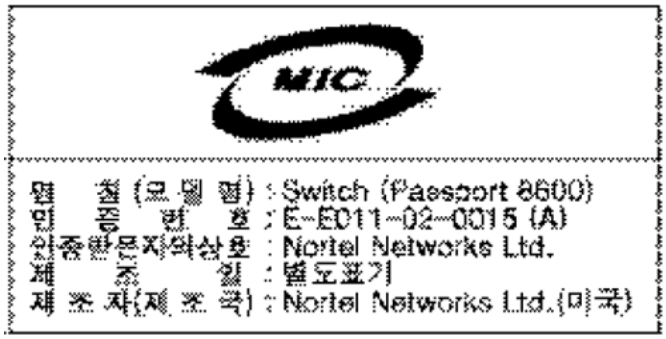
BSMI statement for 8310 and 8306 chassis (Taiwan only)

This is a Class A product based on the standard of the Bureau of Standards, Metrology and Inspection (BSMI) CNS 13438, Class A.

警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

MIC notice for 8310 and 8306 chassis (Republic of Korea only)

This device has been approved for use in Business applications only per the Class A requirements of the Republic of Korea Ministry of Information and Communications (MIC). This device may not be sold for use in a nonbusiness application.



National safety statements of compliance

CE marking statement (Europe only)

EN 60 950 statement

This is to certify that the Nortel Networks 8300 series chassis and components installed within the chassis are in compliance with the requirements of EN 60 950 in accordance with the Low Voltage Directive. Additional national differences for all European Union countries have been evaluated for compliance. Some components installed within the 8300 series chassis may use a nickel-metal hydride (NiMH) and/or lithium-ion battery. The NiMH and lithium-ion batteries are long-life batteries, and it is very possible that you will never need to replace them. However, should you need to replace them, refer to the individual component manual for directions on replacement and disposal of the battery.

NOM statement 8310 and 8306 chassis (Mexico only)

The following information is provided on the devices described in this document in compliance with the safety requirements of the Norma Oficial Méxicana (NOM):

Exporter:	Nortel Networks, Inc. 4655 Great America Parkway Santa Clara CA 95054 USA
Importer:	Nortel Networks de México, S.A. de C.V. Avenida Insurgentes Sur #1605 Piso 30, Oficina Col. San Jose Insurgentes Deleg-Benito Juarez México D.F. 03900
Tel:	52 5 480 2100
Fax:	52 5 480 2199
Input:	Model 8005DC: 48-60 VDC, 29-23 A single supply, single supply + one redundant supply, two supplies, or two + one redundant supply configuration Model 8005DI DC: 48-60 VDC, 42-34 A single supply, single supply + one redundant supply, two supplies, or two + one redundant supply configuration

Información NOM (unicamente para México)

La información siguiente se proporciona en el dispositivo o en los dispositivos descritos en este documento, en cumplimiento con los requisitos de la Norma Oficial Méxicana (NOM):

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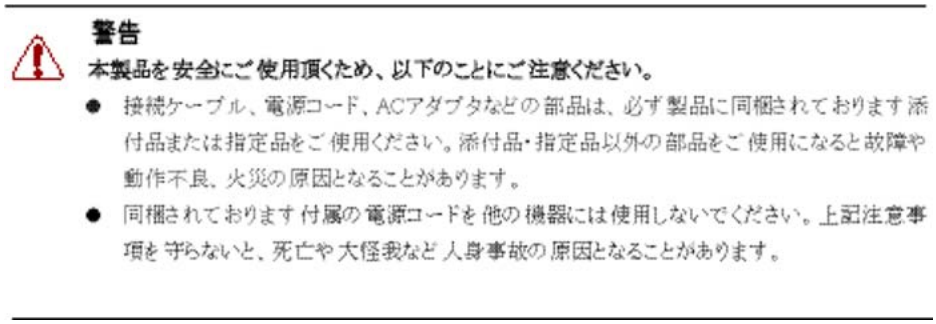
	Piso 30, Oficina
	Col. San Jose Insurgentes
	Deleg-Benito Juarez
	México D.F. 03900
Tel:	52 5 480 2100
Fax:	52 5 480 2199
Embarcar a:	Model 8005DC:
	-48 VCD, 29 A
	una fuente, una fuente + configuraciones de una fuente redundante, dos fuentes o dos + configuraciones de una fuente redundante
	Model 8005DI DC:
	-48 VCD, 42 A
	una fuente, una fuente + configuraciones de una fuente redundante, dos fuentes o dos + configuraciones de una fuente redundante

Denan statement (Japan/Nippon only)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Safety messages

This section describes the different precautionary notices used in this document. This section also contains precautionary notices that you must read for safe operation of the Nortel Ethernet Routing Switch 8300.

Notices

Notice paragraphs alert you about issues that require your attention. The following sections describe the types of notices.

Attention notice

ATTENTION
An attention notice provides important information regarding the installation and operation of Nortel products.

Caution ESD notice

CAUTION
ESD
ESD notices provide information about how to avoid discharge of static electricity and subsequent damage to Nortel products.

CAUTION
ESD (décharge électrostatique)
La mention ESD fournit des informations sur les moyens de prévenir une décharge électrostatique et d'éviter d'endommager les produits Nortel.

CAUTION
ACHTUNG ESD
ESD-Hinweise bieten Information dazu, wie man die Entladung von statischer Elektrizität und Folgeschäden an Nortel-Produkten verhindert.

CAUTION
PRECAUCIÓN ESD (Descarga electrostática)
El aviso de ESD brinda información acerca de cómo evitar una descarga de electricidad estática y el daño posterior a los productos Nortel.

CAUTION
CUIDADO ESD
Os avisos do ESD oferecem informações sobre como evitar descarga de eletricidade estática e os conseqüentes danos aos produtos da Nortel.

CAUTION
ATTENZIONE ESD
Le indicazioni ESD forniscono informazioni per evitare scariche di elettricità statica e i danni correlati per i prodotti Nortel.

Caution notice

CAUTION
Caution notices provide information about how to avoid possible service disruption or damage to Nortel products.

CAUTION
ATTENTION
La mention Attention fournit des informations sur les moyens de prévenir une perturbation possible du service et d'éviter d'endommager les produits Nortel.

CAUTION
ACHTUNG
Achtungshinweise bieten Informationen dazu, wie man mögliche Dienstunterbrechungen oder Schäden an Nortel-Produkten verhindert.

CAUTION
PRECAUCIÓN
Los avisos de Precaución brindan información acerca de cómo evitar posibles interrupciones del servicio o el daño a los productos Nortel.

CAUTION
CUIDADO
Os avisos de cuidado oferecem informações sobre como evitar possíveis interrupções do serviço ou danos aos produtos da Nortel.

CAUTION
ATTENZIONE
Le indicazioni di attenzione forniscono informazioni per evitare possibili interruzioni del servizio o danni ai prodotti Nortel.

Warning notice

WARNING
Warning notices provide information about how to avoid personal injury when working with Nortel products.

WARNING
AVERTISSEMENT
La mention Avertissement fournit des informations sur les moyens de prévenir les risques de blessure lors de la manipulation de produits Nortel.

WARNING
WARNUNG
Warnhinweise bieten Informationen dazu, wie man Personenschäden bei der Arbeit mit Nortel-Produkten verhindert.

WARNING
ADVERTENCIA
Los avisos de Advertencia brindan información acerca de cómo prevenir las lesiones a personas al trabajar con productos Nortel.

WARNING
AVISO
Os avisos oferecem informações sobre como evitar ferimentos ao trabalhar com os produtos da Nortel.

WARNING
AVVISO
Le indicazioni di avviso forniscono informazioni per evitare danni alle persone durante l'utilizzo dei prodotti Nortel.

Danger High Voltage notice

DANGER
Danger—High Voltage notices provide information about how to avoid a situation or condition that can cause serious personal injury or death from high voltage or electric shock.

DANGER
La mention Danger—Tension élevée fournit des informations sur les moyens de prévenir une situation ou une condition qui pourrait entraîner un risque de blessure grave ou mortelle à la suite d'une tension élevée ou d'un choc électrique.

DANGER
GEFAHR
Hinweise mit Vorsicht – Hochspannung" bieten Informationen dazu, wie man Situationen oder Umstände verhindert, die zu schweren Personenschäden oder Tod durch Hochspannung oder Stromschlag führen können.

DANGER
PELIGRO
Los avisos de Peligro-Alto voltaje brindan información acerca de cómo evitar una situación o condición que cause graves lesiones a personas o la muerte, a causa de una electrocución o de una descarga de alto voltaje.

DANGER
PERIGO
Avisos de Perigo—Alta Tensão oferecem informações sobre como evitar uma situação ou condição que possa causar graves ferimentos ou morte devido a alta tensão ou choques elétricos.

DANGER
PERICOLO
Le indicazioni Pericolo—Alta tensione forniscono informazioni per evitare situazioni o condizioni che potrebbero causare gravi danni alle persone o il decesso a causa dell'alta tensione o di scosse elettriche.

Danger notice

DANGER
Danger notices provide information about how to avoid a situation or condition that can cause serious personal injury or death.

DANGER
La mention Danger fournit des informations sur les moyens de prévenir une situation ou une condition qui pourrait entraîner un risque de blessure grave ou mortelle.

DANGER
GEFAHR
Gefahrenhinweise stellen Informationen darüber bereit, wie man Situationen oder Umständen verhindert, die zu schweren Personenschäden oder Tod führen können.

DANGER
PELIGRO
Los avisos de Peligro brindan información acerca de cómo evitar una situación o condición que pueda causar lesiones personales graves o la muerte.

DANGER
PERIGO
Avisos de perigo oferecem informações sobre como evitar uma situação ou condição que possa causar graves ferimentos ou morte.

DANGER
PERICOLO
Le indicazioni di pericolo forniscono informazioni per evitare situazioni o condizioni che potrebbero causare gravi danni alle persone o il decesso.

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New in this Release

The following sections detail what's new in *Nortel Ethernet Routing Switch 8300 Installation — DC Power Supply, NN46200-310* for Release 4.1:

Features

The 8005DC and 8005DI DC is a new feature for the Ethernet Routing Switch 8300.

Other changes

See the following section for information about changes that are not feature-related:

Document changes

This document is modified to meet Nortel Customer Documentation Standards. For more information about these standards, see *Nortel Ethernet Routing Switch 8300 Documentation Roadmap, NN46200-101*.

Introduction

This guide provides information about the 8005 Dual Input (DI) DC and 8005DC power supplies used in the Ethernet Routing Switch 8300.

The guide also includes instructions for adding and replacing this DC power supply in the following Ethernet Routing Switch 8300 chassis models:

- 8306 Chassis
- 8310 Chassis

ATTENTION
This guide is intended for qualified service personnel with appropriate technical training and experience. The service personnel also must be aware of the hazards involved in installing and replacing customer-replaceable units.

CAUTION
This device is a Class A product. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users are required to take appropriate measures necessary to correct the interference at their own expense.

For the minimum Ethernet Routing Switch 8300 software version required to support the hardware, see *Nortel Ethernet Routing Switch 8300 Administration, NN46200-604*.

Task and estimated time

The following table lists the estimated time to install a DC power supply for the Ethernet Routing Switch 8300.

The estimated installation time can range from 15 to 50 minutes. The installation time depends on the chassis model and the number of power supplies you are installing.

Table 1
Task and estimated time

Task	Estimated Time
Preparing cable for installation	5 minutes for each power supply
Removing the power filler panel	1 minute for each power supply
Installing the DC power supply	2 minutes for each power supply
Removing the DC power supply cover	1 minute for each power supply
Cabling the DC power supply using washers and lugs	5 minutes for each power supply
Replacing the DC power supply cover	1 minute for each power supply

Navigation

- "DC power supply fundamentals" (page 23)
- "DC power supply installation" (page 27)
- "Technical specifications" (page 47)

DC power supply fundamentals

This section provides the basic information about the Ethernet Routing Switch 8300 DC power supplies.

Navigation

Power supply LED

The following table describes the power supply Light Emitting Diode (LED) on the DC power supply.

Table 2
Power supply LED

State	Description
Off	No output is present
On (green)	Power supply output is normal

DC power supply accessories

The Ethernet Routing Switch 8300 chassis ships with no installed power supplies. Install the first power supply in the left-most bay. Power supply bays are numbered 1, 2, and 3 from left to right as viewed from the front of the chassis for the 8306 and 8310. For instructions to install the power supply, see "Installing the DC power supply" (page 31).

In addition to the DC power supply and the installation guide, your DC power supply shipment contains several hardware accessories. Verify that the items in the shipping container match those on the shipment packing list.

Use the following table as a checklist to verify the contents of the DC power supply shipping container.

Table 3
DC power supply shipping accessories

Check	Accessory		Purpose
	3 two-hole crimp lug terminals with attached tubing		Connect the positive and negative power inputs.
	6 nuts		Connect all leads.
	6 lock washers		Connect all leads.
	2 washers		Connect the ground stud.

Ethernet Routing Switch 8300 series chassis

This section describes the Ethernet Routing Switch 8300 series chassis DC power supplies.

The 8306 and 8310 chassis each have three power supply bays in which you can install either the 8005DC or the 8005DI DC power supply.

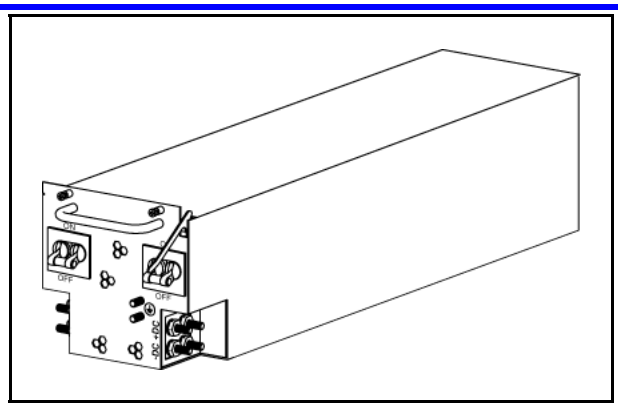
If the total power provided by the power supplies falls below the switch requirement, the polling software displays the following message on the console: "chCheckPowerUsage: One or more cards running low on power."

To display the total power the switch uses and the total power the power supplies provide, see *Nortel Ethernet Routing Switch 8300 Performance Management, NN46200-705*.

8005DI DC power supply

Each 8005DI DC power supply provides 1462 W of power to the switch. The 8005DI DC power supply does not provide any power for Power over Ethernet (PoE).

The following figure shows the 8005DI DC power supply used in the 8306 and 8310 chassis.



Minimum number of 8005DI DC power supplies to install

To configure an Ethernet Routing Switch 8300 system, consider the total power consumption to ensure proper system performance.

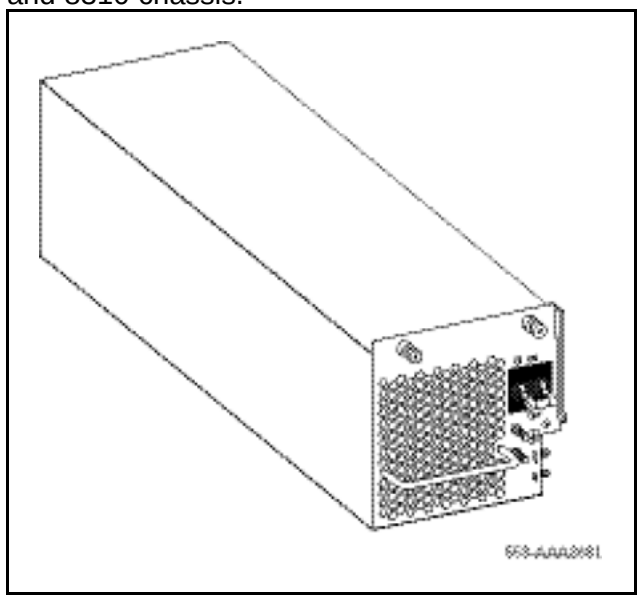
The total input power consumption of the components (modules and fan trays) must not exceed the 8005DI DC power supply rating.

To determine the minimum number of power supplies to install for the Ethernet Routing Switch 8300 system, see “Determining the minimum number of DC power supplies” (page 28).

8005DC power supply

Each 8005DC power supply provides 1462 W of power to the switch. The 8005DC power supply does not provide any power for Power over Ethernet (PoE).

The following figure shows the 8005DC power supply used in the 8306 and 8310 chassis.



Minimum number of 8005DC power supplies to install

To configure an Ethernet Routing Switch 8300 system, consider the total power consumption to ensure proper system performance.

The total input power consumption of the components (modules and fan trays or cooling modules) must not exceed the 8005DC power supply rating.

To determine the minimum number of power supplies to install for the Ethernet Routing Switch 8300 system, see “Determining the minimum number of DC power supplies” (page 28).

Redundant power configuration

If a chassis has a redundant power configuration and one power supply fails, the chassis continues to operate with no interruption of service. The chassis continues to supply the same module output power with the remaining power supplies. A trap and syslog message indicates that the configuration is nonredundant. Nortel recommends that you operate the Ethernet Routing Switch 8300 system in a redundant configuration at all times to ensure maximum network performance.

ATTENTION
A redundant power supply ensures that the system does not fail if a single power supply fails.

If a chassis has the minimum power supply configuration and one power supply fails, the system loses power and network connectivity.

DC power supply installation

This chapter provides instructions to install the DC power supply in the Ethernet Routing Switch 8300 chassis.

See *Nortel Ethernet Routing Switch 8300 Administration, NN46200-604* for the minimum Ethernet Routing Switch 8300 software version required to support the hardware.

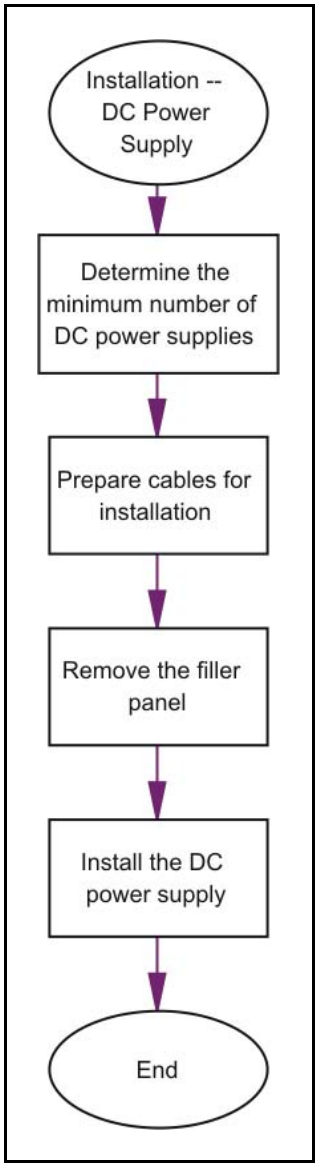
ATTENTION
Nortel recommends that you install each power supply on its own dedicated branch circuit to ensure that a fault on another branch circuit does not cascade to other branch circuits.

Prerequisites

- Verify that you have the following tools and materials:
  - cable
  - crimping tool for crimping the lugs onto the cable
  - heat gun to shrink the tubing around the cable (optional)
  - 7/16-inch hex wrench
  - Phillips screwdriver
- Determine the minimum number of DC power supplies to be installed. For more information, see “Determining the minimum number of DC power supplies” (page 28)

DC power supply installation procedures

This task flow shows you the sequence of procedures you perform to install the duel input DC power supply in the Ethernet Routing Switch 8300. To link to any tasks, go to “DC power supply installation navigation” (page 28).



DC power supply installation navigation

Determining the minimum number of DC power supplies

Use the following procedure to determine the minimum number of power supplies to install for the Ethernet Routing Switch 8300 system.

For more information, see *Nortel Ethernet Routing Switch 8300 Installation — Chassis, NN46200-309*.

Procedure steps

Step	Action
1	Add the total (3.3 V and 12 V) input power consumption (wattage) for all components (modules and fan trays or cooling modules).
2	Refer to the output power rating of the power supply based on the input connection. If either the individual or the combined power requirements for the components exceed the power supply rating, you need to add at least another power supply to your configuration. For the 8005DI DC power supply specifications, see "Model 8005DI DC power supply" (page 47). For the 8005DC power supply specifications, see "Model 8005DC power supply" (page 48)
3	Consider your redundant power supply needs. If one power supply satisfies your system power consumption needs, a second power supply provides redundancy. If two power supplies satisfy your system power consumption needs, a third power supply provides redundancy.

--End--

Preparing cables for installation

Prepare the cables for installation of the power supply of the Ethernet Routing Switch 8300.

Nortel does not supply the cables for connecting the DC power supply to the DC input power source. Select cables that comply with the electrical code of the country where you use the DC power supply.

CAUTION
Risk of equipment damage

Make sure that the connection cable used with the DC power supply is appropriate for use with the DC power source to which the power supply connects. Consider gauge, flammability, and mechanical serviceability when you determine which cables to use.

Procedure steps

Step	Action

1 Strip 0.81 in. (2.1 cm) of insulation from the ends of the cables.

2 Crimp the lugs onto the cables using a standard crimping tool.

CAUTION
Risk of injury by electric shock

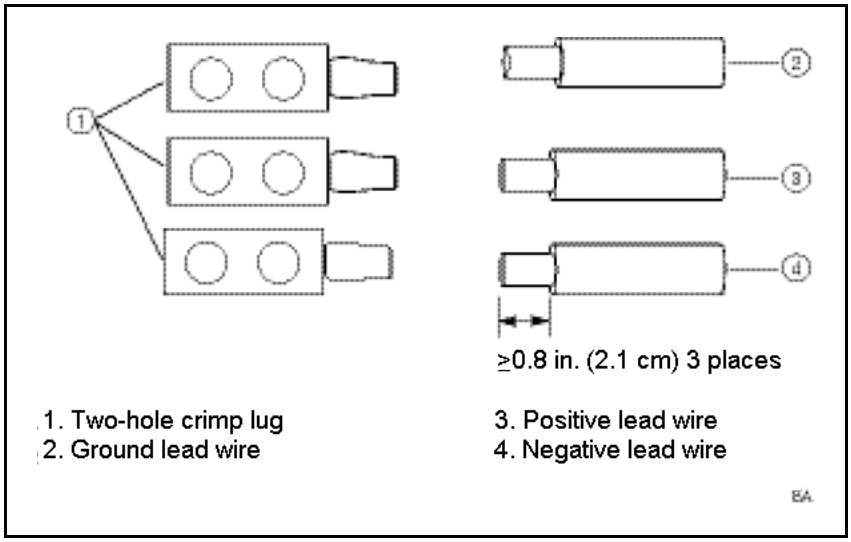
Failure to properly crimp the lugs onto the cables constitutes a safety hazard.

3 If necessary, use a heat gun to shrink the tubing around the cable.

--End--

Job aid: Cable stripping requirements

The illustrations in this section provide details about cable stripping requirements for the 8005DI DC and 8005DC power supplies.



Removing the power filler panel

A power filler panel maintains the proper cooling airflow in the Ethernet Routing Switch 8300 chassis. You must remove the power filler panel from the power bay when you install a power supply in a bay for the first time.

CAUTION
To maintain proper cooling, never operate the chassis with an empty power supply bay. If you replace a failed power supply and you have no power filler panel, leave the failed power supply installed until a replacement power supply is available.

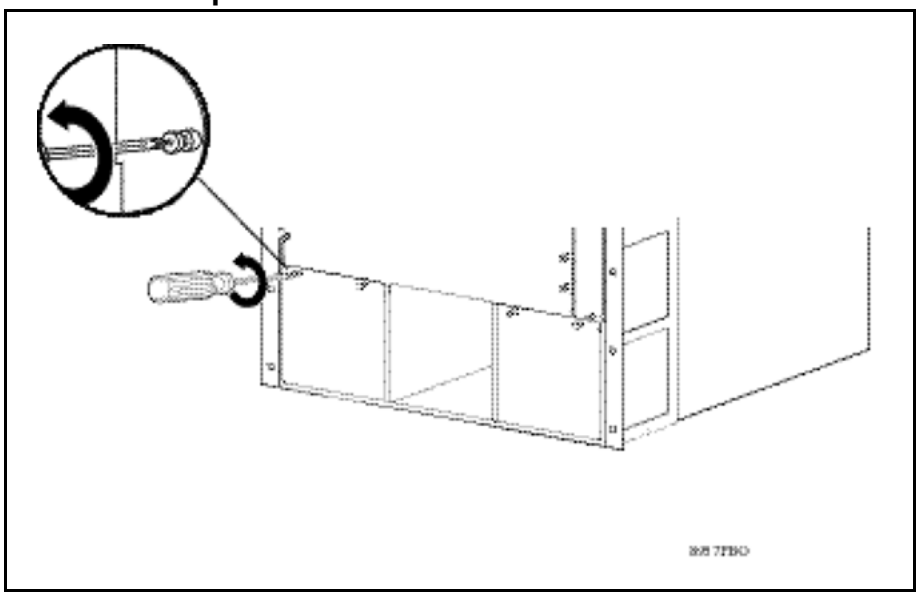
Procedure steps

Step	Action
1	Use a Phillips screwdriver to loosen the two captive screws that secure the power filler panel to the chassis until the power filler panel disengages. See "Job aid: Power filler panel removal" (page 31).
2	Pull the power filler panel from the chassis.

CAUTION
Save the power filler panel in case you need to operate the Ethernet Routing Switch 8300 chassis with a power supply removed.

--End--

Job aid: Power filler panel removal



Installing the DC power supply

Install the DC power supply to the DC input power source of the Ethernet Routing Switch 8300.

CAUTION
Risk of equipment damage

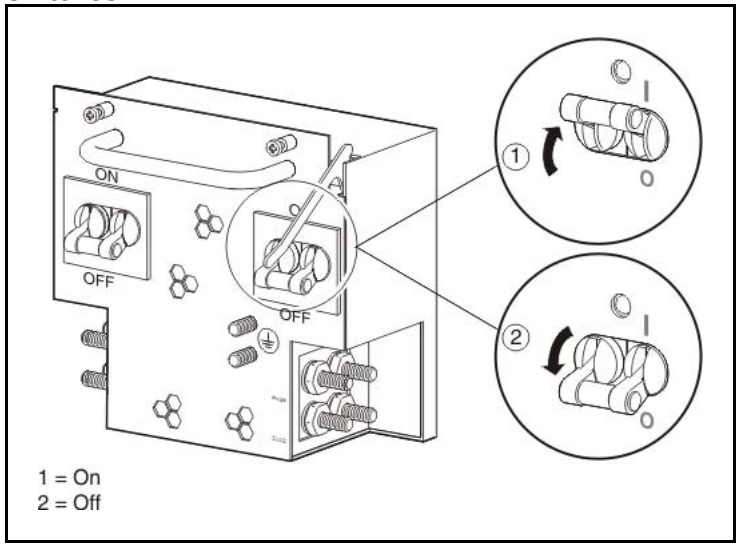
To prevent damage from electrostatic discharge, always wear an antistatic wrist strap connected to an ESD jack.

DANGER
Risk of injury by electric shock

Before working on this equipment, be aware of proper safety practices and the hazards involved with electrical circuits. Use only power cords that have a grounding path. Ensure the switch is properly grounded before powering on the unit.

Procedure steps

Step	Action
1	Switch off the power supply. See the following figure for the exact location of the power switches.



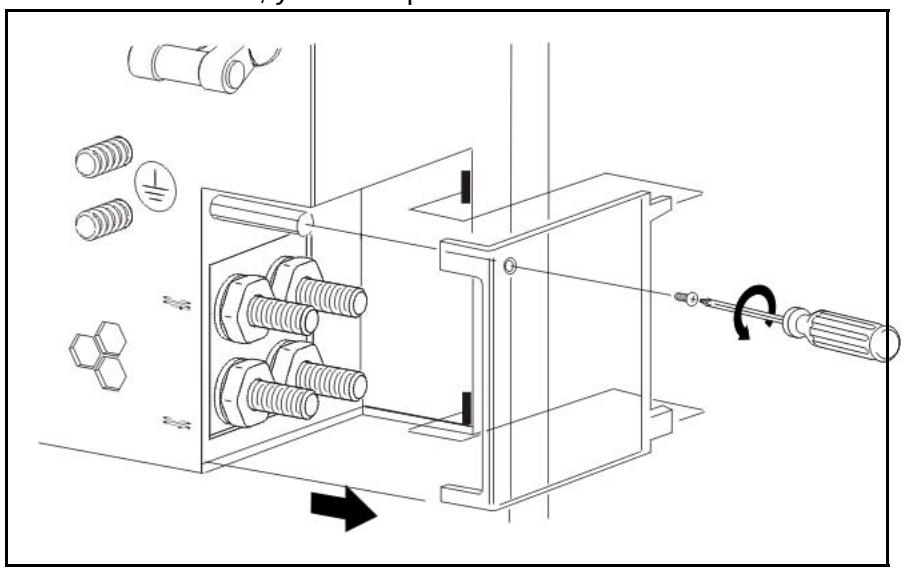
2	Remove the filler panel from the power bay if necessary.

CAUTION
Save the power filler panel in case you need to operate the Ethernet Routing Switch 8300 chassis with a power supply removed.

3	If you are replacing a failed power supply, remove the failed DC power supply.
4	Grasp the handle of the new power supply.

5 Push the new power supply partway into the bay, leaving the terminal block at the side of the power supply exposed. See “Job aid: Inserting the DC power supply” (page 36).

6 Use a Phillips screwdriver to remove the screw that secures the plastic safety cover to the power supply and remove the cover. Set the cover aside; you will replace it later.



7 Note the positions of the ground studs and of the positive and negative power inputs. See “Job aid: DC power supply input and ground stud location” (page 36).

Either +VDC or –VDC can be referenced to the frame ground for +48 VDC (nominal) or –48 VDC (nominal) applications.

8 Make sure that the +DC cable is always connected to the positive terminal and the –DC cable is always connected to the negative terminal.

DANGER

Risk of injury by electric shock

Before you continue with this procedure, ensure that the DC power source is switched off.

9 Attach the earth ground lead to the ground stud on the power supply. See “Job aid: Attaching the earth ground lead to the ground stud” (page 37).

Use the washers in the following order:

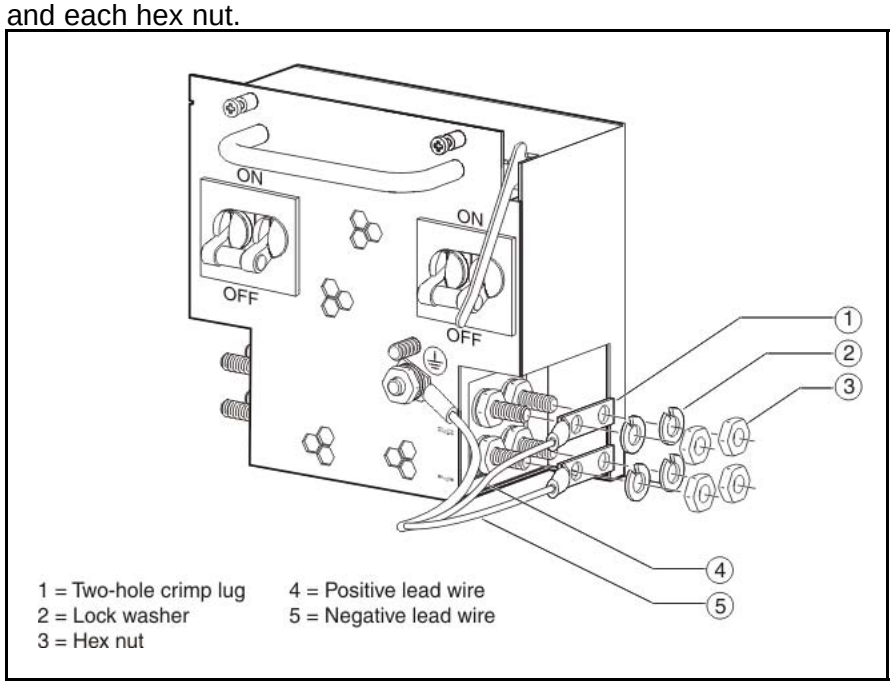
a flat washer

b crimp lug

c lock washer

d Hex nut

10 Attach the positive voltage lead to the positive terminal on the power supply and insert a lock washer between the crimp lug and each hex nut.

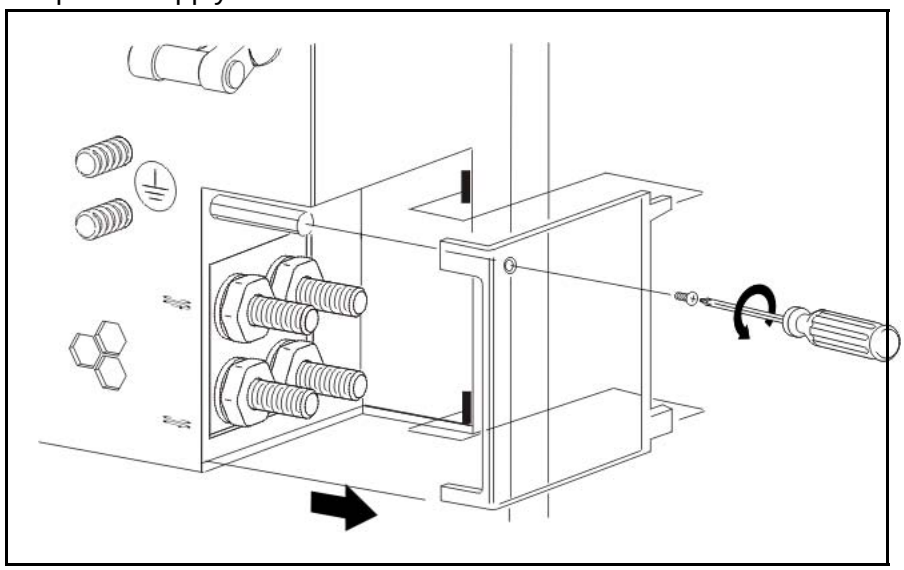


11 Attach the negative voltage lead to the negative terminal on the power supply to insert a lock washer between the crimp lug and each hex nut.

12 Use a 7/16 inch hex wrench to tighten the hex nut on each terminal.

13 Attach the earth ground cable to the system or rack ground for your DC input power source.

14 Use a Phillips screwdriver to replace the plastic safety cover on the power supply.



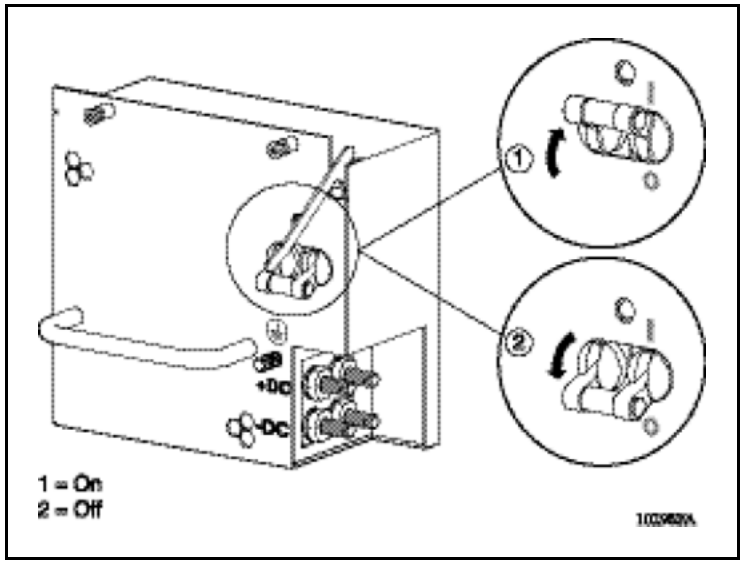
15 Firmly slide the power supply all the way into the bay. See “Job aid: Tightening the retaining screws on the DC power supply” (page 37).

16 Tighten the retaining screws to firmly seat the power supply.

17 Attach the positive and negative terminal leads to the DC input power source according to the proper safety and technical specifications for your 48 V power distribution system.

18 Turn the DC input power source on or reset the power source circuit breaker to provide power to the power supply.

19 Turn the power supply switch to the on position.



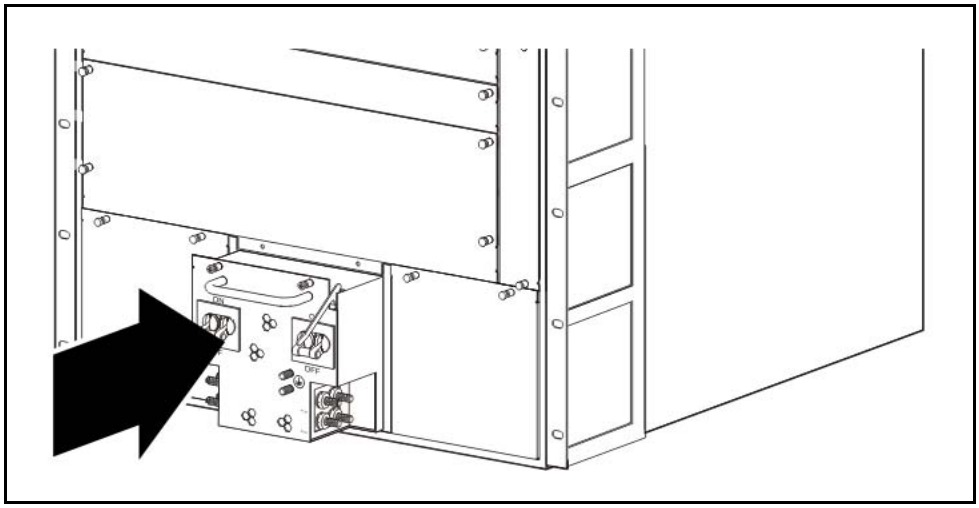
ATTENTION
Due to the N+1 power sharing architecture, if your chassis contains two or three nonredundant power supplies, Nortel recommends that you turn on the power supplies simultaneously. If you wait longer to turn on the supplies, the power supplies shut off within 7 seconds. To correct this condition, turn off the power supplies for 2 minutes, and then simultaneously turn on the power supplies again.

20 If the LED on the power supply does not turn on, contact the Nortel Technical Solutions Center.

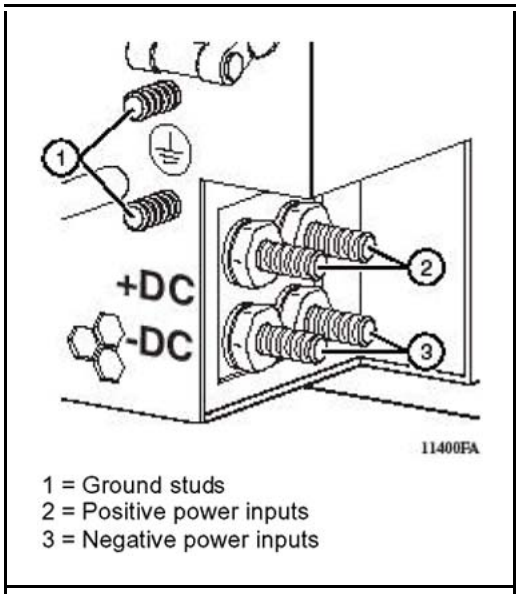
--End--

Job aid: Inserting the DC power supply

Figure 1
Inserting the DC power supply: 8306 and 8310 chassis

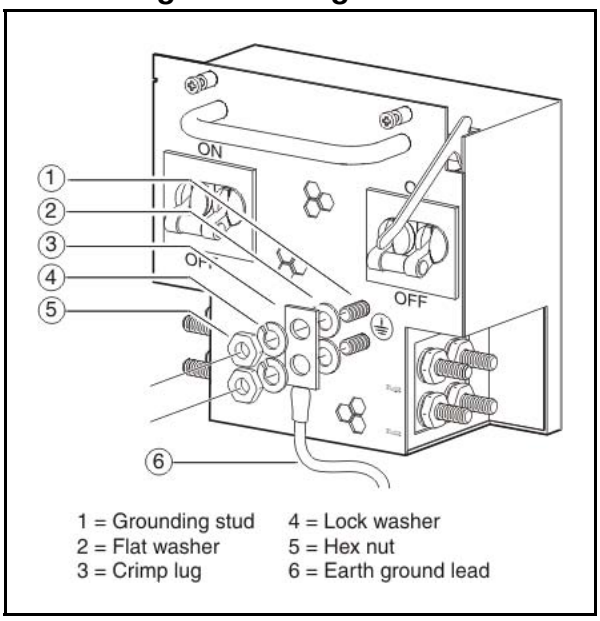


Job aid: DC power supply input and ground stud location



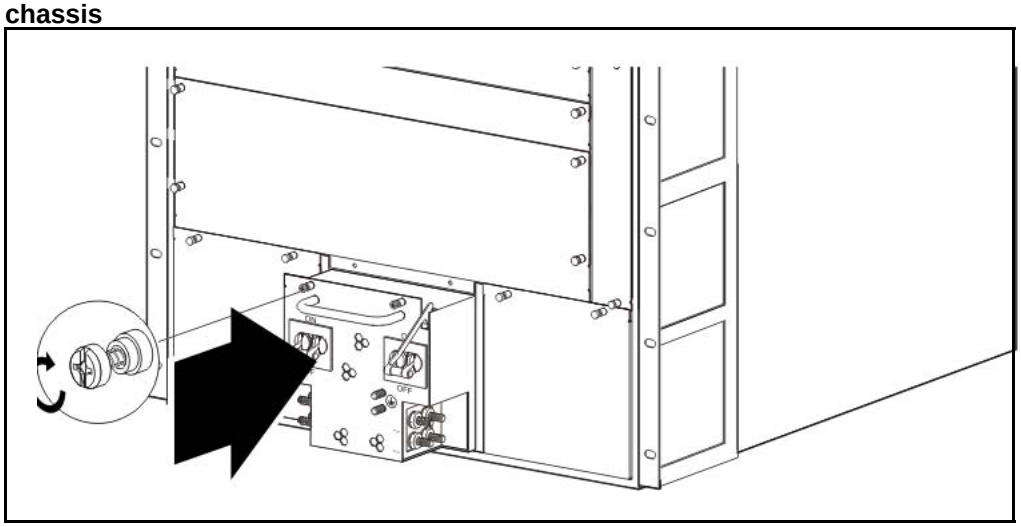
1 = Ground studs
2 = Positive power inputs
3 = Negative power inputs

Job aid: Attaching the earth ground lead to the ground stud



Job aid: Tightening the retaining screws on the DC power supply

Figure 2
Tightening the retaining screws on the DC power supply: 8306 and 8310 chassis



Translations of safety messages

This section provides translations of the different precautionary notices used in this document.

Notices

CAUTION
This device is a Class A product. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users are required to take appropriate measures necessary to correct the interference at their own expense.

CAUTION
ATTENTION
Le périphérique est un produit de Classe A. Le fonctionnement de cet équipement dans une zone résidentielle risque de causer des interférences nuisibles, auquel cas l'utilisateur devra y remédier à ses propres frais.

CAUTION
ACHTUNG
Dies ist ein Gerät der Klasse A. Bei Einsatz des Geräts in Wohngebieten kann es Störungen des Radio- und Fernsehempfangs verursachen. In diesem Fall muss der Benutzer alle notwendigen Maßnahmen ergreifen, die möglicherweise nötig sind, um die Störungen auf eigene Rechnung zu beheben.

CAUTION
PRECAUCIÓN
Este es un producto clase A. El uso de este equipo en áreas residenciales puede causar interferencias nocivas, en cuyo caso, se requerirá que los usuarios tomen cualquier medida necesaria para corregir la interferencia por cuenta propia.

CAUTION
CUIDADO
Este dispositivo é um produto Classe A. Operar este equipamento em uma área residencial provavelmente causará interferência prejudicial; neste caso, espera-se que os usuários tomem as medidas necessárias para corrigir a interferência por sua própria conta.

CAUTION
ATTENZIONE
Questo dispositivo è un prodotto di Classe A. Il funzionamento di questo apparecchio in aree residenziali potrebbe causare interferenze dannose, nel cui caso agli utenti verrà richiesto di adottare tutte le misure necessarie per porre rimedio alle interferenze a proprie spese.

CAUTION
Risk of equipment damage

Make sure that the connection cable you use with the DC power supply is appropriate for use with the DC power source to which the power supply connects. Consider gauge, flammability, and mechanical serviceability when you determine which cables to use.

CAUTION
ATTENTION
Risques d'endommagement de l'équipement

Assurez-vous que le câble de connexion utilisé avec l'alimentation en courant continu est adapté à une utilisation avec la source d'alimentation à laquelle il est raccordé. Plusieurs critères tels que le calibre, l'inflammabilité et l'aptitude à l'usage mécanique doivent être pris en compte lorsque vous choisissez le câble à utiliser.

CAUTION
VORSICHT
Risiko von Geräteschäden

Vergewissern Sie sich, dass für den Anschluss des Gleichstrom-Netzteils an die Gleichstromquelle ein für diese Quelle geeignetes Verbindungskabel verwendet wird. Bei der Auswahl der Kabel sind Dicke, Brennbarkeit und mechanische Tauglichkeit der Kabel zu beachten.

CAUTION
PRECAUCIÓN
Riesgo de daños en los equipos

Controle que el cable de conexión que utilice con la fuente de alimentación de CC sea el adecuado. Para determinar qué cables debe utilizar, evalúe el calibre, la inflamabilidad y la funcionalidad mecánica.

CAUTION
CUIDADO
Risco de danos ao equipamento

Verifique se o cabo de conexão a ser usado com a fonte de alimentação DC é adequado para ser usado na fonte de alimentação DC na qual a fonte de alimentação está conectada. Considere a medida, a flamabilidade e a resistência mecânica ao determinar quais cabos podem ser usados.

CAUTION
ATTENZIONE
Rischio di danno all'apparecchio

Assicurarsi che il cavo di connessione utilizzato con l'alimentatore c.c. sia appropriato all'utilizzo con la sorgente di alimentazione c.c. al quale l'alimentatore è collegato. Nella scelta dei cavi da utilizzare, considerarne lo spessore, l'infiammabilità e lo stato di efficienza meccanica.

CAUTION
Risk of equipment damage

To prevent damage from electrostatic discharge, always wear an antistatic wrist strap connected to an ESD jack.

CAUTION
ATTENTION
Risque d'endommagement de l'équipement

Pour prévenir tout dommage dû à une décharge électrostatique, vous devez toujours porter un un bracelet antistatique connecté à une prise ESD.

CAUTION
ACHTUNG
Risiko eines Geräteschadens Um Schäden

durch elektrostatische Entladung zu verhindern, tragen Sie bei der Instandhaltung dieses Produkts immer ein antistatisches Band am Handgelenk, welches mit einer ESD-Buchse verbunden ist.

CAUTION
PRECAUCIÓN
Riesgo de daño del equipo

Para prevenir el daño producido por una descarga electrostática, use siempre una pulsera antiestática conectada a un enchufe ESD.

CAUTION
CUIDADO
Risco de danos ao equipamento

Para evitar danos com descarga eletrostática, sempre use uma pulseira antiestática que esteja conectada a uma tomada ESD.

CAUTION
ATTENZIONE
Rischio di danni all'apparecchiatura

Per evitare danni derivanti da scariche elettrostatiche, indossare sempre un polsino antistatico collegato a una presa ESD.

DANGER
Risk of injury by electric shock

Failure to properly crimp the lugs onto the cables constitutes a safety hazard.

DANGER
Risques de blessure par choc électrique

Pour votre sécurité, vérifiez que les cosses sont correctement serties sur les câbles.

DANGER
Pour votre sécurité, vérifiez que les cosses sont correctement serties sur les câbles.
Verletzungsrisiko durch Stromschlag

Es besteht ein Sicherheitsrisiko, wenn die Anschlussstücke nicht ordnungsgemäß auf die Kabel geklemmt werden.

DANGER
PELIGRO
Riesgo de lesiones por choques eléctricos

Para evitar riesgos, pliegue correctamente hacia adentro los terminales de los cables.

DANGER
PERIGO
Risco de ferimento por choque elétrico

Enrolar os suportes aos cabos de maneira incorreta implica em um risco de segurança.

DANGER
PERICOLO
Rischio di lesioni per shock elettrico

Il piegamento non corretto delle linguette nei cavi costituisce un rischio per la sicurezza.

CAUTION
To maintain proper cooling, never operate the Ethernet Routing Switch 8300 with an empty power supply bay. If you are replacing a failed power supply and you do not have a power filler panel, leave the failed power supply installed until a replacement power supply is available.

CAUTION
ATTENTION
Pour garantir une ventilation adaptée, n'utilisez jamais le Ethernet Routing Switch 8300 lorsque la baie d'alimentation est vide. Ne retirez pas une alimentation, même défectueuse, si vous ne disposez pas d'un panneau de remplissage à installer à sa place.

CAUTION
ACHTUNG
Zur Gewährleistung einer ordnungsgemäßen Kühlung nehmen Sie Ethernet Routing Switch 8300 niemals in Betrieb, wenn ein Netzteilschacht unbesetzt ist. Wenn Sie ein defektes Netzteil ersetzen, ohne eine Aussparungsabdeckung zur Hand zu haben, lassen Sie das defekte Netzteil installiert, bis ein Ersatz-Netzteil verfügbar ist.

CAUTION
PRECAUCIÓN
Para mantener una refrigeración adecuada, no opere Ethernet Routing Switch 8300 con el compartimiento de la fuente de alimentación vacío. Si necesita reemplazar una fuente de alimentación defectuosa y no cuenta con un panel de relleno de energía, no la extraiga hasta tanto consiga el repuesto.

CAUTION
CUIDADO
Para manter o resfriamento adequado, nunca opere o Ethernet Routing Switch 8300 com um compartimento de fonte de alimentação vazio. Se você estiver substituindo uma fonte de alimentação com defeito e não tiver um painel de preenchimento de energia, deixe fonte com defeito instalada até que a fonte de substituição esteja disponível.

CAUTION
ATTENZIONE
Per mantenere un raffreddamento appropriato, non utilizzare mai il Ethernet Routing Switch 8300 con il vano di alimentazione vuoto. Se si sostituisce un alimentatore guasto e non si dispone di un pannello di riempimento, lasciare installato l'alimentatore guasto finché non sarà disponibile un alimentatore per la sostituzione.

CAUTION
Save the power filler in case you need to operate the Ethernet Routing Switch 8300 with a power supply removed.

CAUTION
ATTENTION
Conservez le panneau de remplissage. Il vous sera utile si vous devez utiliser le Ethernet Routing Switch 8300 sans source d'alimentation.

CAUTION
ACHTUNG
Bewahren Sie die Aussparungsabdeckung für den Fall auf, dass Sie Ethernet Routing Switch 8300 verwenden müssen, wenn ein Netzteil entfernt ist.

CAUTION
PRECAUCIÓN
Conserve el panel de relleno de energía para utilizarlo en caso de ser necesario operar Ethernet Routing Switch 8300 sin una fuente de alimentación.

CAUTION
CUIDADO
Guarde o painel de preenchimento de energia caso seja preciso operar o Ethernet Routing Switch 8300 sem a fonte de alimentação.

CAUTION
ATTENZIONE
Conservare il pannello di riempimento dell’alimentatore nel caso in cui sia necessario utilizzare il Ethernet Routing Switch 8300 con l’alimentatore rimosso.

Appendix Technical specifications

This appendix lists the electrical specifications for the 8005DI DC power supplies.

Technical specifications navigation

Model 8005DI DC power supply

This section provides power ratings for the 8005DI DC input power supply and output power supply.

DC input power specifications

The following table describes the technical specifications for DC input power for Model 8005DI DC power supply.

Table 4
DC input power specifications for Model 8005DI DC power supply

Parameter	Specifications
Input voltage	40 VDC/75 VDC
Input current	48.75/32.5 A
Input VA	1.95 kVA
Input power consumption	1950 W
Heat dissipation (thermal/output)	1666 Btu/hr

DC output power specifications

The following table describes the technical specifications for DC input power for Model 8005DI DC power supply.

Table 5
DC output power specifications for Model 8005DI DC power supply

Parameter	Specifications
Output power (maximum)	1462 W continuous, 1660 W peak with forced air cooling
Modules	3.3 V @ 150 A 12 V @ 72 A
Fans	12 VDC @ 7.5 A/ 24 A peak
MTBF	108 803 hr (Bellcore TR–332 standard)

Model 8005DC power supply

This section provides power ratings for the 8005DC input power supply and output power supply.

DC input power specifications

The following table describes the technical specifications for DC input power for Model 8005DC power supply.

Table 6
DC input power specifications for Model 8005DC power supply

Parameter	Specifications
Input voltage	– 48 VDC/ – 60 VDC
Input current	42/34 A
Input VA	1.95 kVA
Input power consumption	1950 W
Heat dissipation (thermal/output)	1666 Btu/hr

DC output power specifications

The following table describes the technical specifications for DC input power for Model 8005DC power supply.

Table 7
DC output power specifications for Model 8005DC power supply

Parameter	Specifications
Output power (maximum)	1462 W (1372 W + 90 W fans)
Modules	3.3 V @ 150 A 12 V @ 72 A

Table 7
DC output power specifications for Model 8005DC power supply (cont'd.)

Parameter	Specifications
Fans	12 VDC @ 7.5 A/ 24 A peak
MTBF	108 803 hr (Bellcore TR–332 standard)

Nortel Ethernet Routing Switch 8300

Installation — DC Power Supply

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To provide feedback or to report a problem in this document, go to www.nortel.com/documentfeedback.

www.nortel.com

ATTENTION

For information about the regulatory and safety precautions, read "Regulatory messages and safety precautions" in this guide.

For information about the software license, read "Software license" in this guide.